

From: nicholas lau <nicholas_lcy@hotmail.com>
Sent: Friday, September 6, 2002 4:08 AM
To: bhaskell@apple.com
Cc: jvt-experts@mail.imtc.org
Subject: [jvt-experts] Re: Picture Order Count (Temporal Distance)

Barry Haskell wrote:

>Hmmmmmm. I believe you have discovered a bug. Thanks much!!! The
>wording should be changed to...
>
>offset_for_non_stored_pic indicates an expected picture order count
>difference of a non-stored picture compared to a stored pic. having a
>frame_num one less than that of the non-stored pic.
>

Dear Barry,

hmm, after changing the def. of offset_for_non_stored_pic, however, again I am still trying to make sense of the value of PicOrderCnt computed according to equation 8-8 in pg. Forgive me if I have got a point wrong or entirely.

First of all, let's consider changing the def of offset_for_non_stored_pic as what you said. However, I found out that the PicOrderCnt is kind of weird, could you enlighten me??

for example,

```
      I P B B P B B P B B P B B...
frame_num  0 1 2 2 2 3 3 3 4 4 4 5 5
temp. cnt   0 3 1 2 6 4 5 9 7 8 12 10 11
PicOrderCnt 0 3 4 5 6 7 8 9 10 11 12 13 14
```

If you notice carefully the values of PicOrderCnt obtained according to equation 8-8 in FCD, you may find that these values are not tally with temporal order for disposed frames. I just wonder how could we use this POC which are out of display order and contained inaccurate timing info. for B frame prediction??

However, if we change the def of frame_num in FCD of 7.4.3 in such:

frame_num shall be incremented by 1 for each stored picture in decoding order, in modulo....., then values of POC are just having the assending order as display order.

for example,

```
      I P B B P B B P B B P B B...
frame_num  0 1 1 1 2 2 2 3 3 3 4 4 4
temp. cnt   0 3 1 2 6 4 5 9 7 8 12 10 11
PicOrderCnt 0 3 1 2 6 4 5 9 7 8 12 10 11
```

Any help on clarifying this would be most welcome.

Best Regards,
Nicholas Lau

>From: Barry Haskell <bhaskell@apple.com>
>To: nicholas lau <nicholas_lcy@hotmail.com>
>CC: jvt-experts@mail.imtc.org
>Subject: Re: [jvt-experts] Picture Order Count (Temporal Distance)
>Date: Thu, 05 Sep 2002 12:05:09 -0700
>
>
>
>nicholas lau wrote:
>
>
>>In the example 2 of your previous mail, you said that
>>offset_for_non_stored_pic = -2, I just wonder how did you get this value.
>>
>>In accordance to FCD def. 7.4.2.1, offset_for_non_stored_pic indicates
>>an expected pic. order count diff. of a non-stored picture compared to
>>a stored pic. having the same frame_num as the non-stored pic.
>
>
>Hmmmmmm. I believe you have discovered a bug. Thanks much!!! The
>wording should be changed to...
>
>offset_for_non_stored_pic indicates an expected picture order count
>difference of a non-stored picture compared to a stored pic. having a
>frame_num one less than that of the non-stored pic.
>
>
>>Lastly, May I know why do we have two type of POC, and criteria of
>>selection the types.
>
>
>For variable frame rates the accuracy requirements for temporal
>distances may be high. Allowing for prestored temporal distances
>reduces the overhead.
>
>--
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The use of the jvt-experts list is intended only for the video coding standardization work conducted by the Joint Video Team (JVT) of ISO/IEC JTC1/SC29/WG11 (MPEG) and ITU-T SG16 Q.6 (VCEG).

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